Identifying a location of the sludge deposit;

draining the water level in the steam generator to just above the identified sludge deposit;

allowing the pressure inside the steam generator to increase to a designated level;

venting the steam generator to induce boiling thus creating both thermal and mechanical stress in the sludge deposit; and

draining the boiler or using water lancing techniques to remove the dislodged sludge deposit.

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2. A method as set forth in claim 1 wherein the step of inducing both thermal and mechanical stress is done without the application of external heat or pressure.

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3. A method as set forth in claim 2 wherein the sludge deposit is on the tube support plates or tubesheet of the steam generator / boiler.

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- 4. A method as set forth in claim 3 wherein the sludge deposit is an excessive deposit known as a collar.
- 5. A method as set forth in claim 4 wherein the draining of the water level is to a level of between 0 and 36 inches above the identified sludge deposit.

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- 6. A method as set forth in claim 5 including the step of identifying the next sludge deposit and draining the water level to the next sludge deposit.
 - 7. A method as set forth in claim 6 including the steps of:

allowing the pressure inside the steam generator to increase to a designated level;

venting the steam generator to induce boiling thus creating both thermal and mechanical stress in the sludge deposit; and

draining the boiler or using water lancing techniques to remove the dislodged sludge deposit.

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